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EXAMINER	
LE, TUAN H	

ART UNIT	PAPER NUMBER
2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/507,043	MIKI ET AL.	
	Examiner	Art Unit	
	TUAN H. LE	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,3,5,7,9 and 11-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,3,5,7,9,11,12,14 and 15* is/are rejected.

7)☒ Claim(s) *13 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed 1/3/08 have been fully considered but they are not persuasive.

Regarding **claims 2, 3, 5, and 9**, the applicant submits that inherency of display graphic memories in computer system, as shown in Fig 5 of Lanier (6,400,374), may not be established by probabilities or possibilities. Furthermore, the applicant submits that when buffer or frame memories along with other electronic components, they would raise the cost and size of the system, (Remarks, page 11 lines 5-19).

However, the examiner respectfully disagrees.

A person of ordinary skills in the art acknowledges that a personal computer with display module inherently includes a buffer or frame memory for storing image data for displaying. Also, the graphic memory as described by applicant's claimed invention stores image data for displaying on an LCD but does not permanently stored image data for a long term. Therefore, the inherent display graphic memory as described by Lanier meets the limitation of applicant's claimed invention.

Regarding the cost and size when buffer memories are used, the examiner would like to point out that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Yet further, regarding **claims 2, 3, 5, and 9,** applicant submits that Lanier does not teach or suggest claimed element and the manner of operation of a transfer unit (Remarks, page 11 lines 20-22).

However, the examiner respectfully disagrees.

As shown in Fig. 5 of Lanier, the graphic image system includes two LCD modules along with graphic memories and communication protocols. It is inherent that the completion of image transfer must be monitored by components 93, 95 and 96 for communication between two personal computers.

Regarding **claim 7**, applicant submits that there has been a failure to articulated a reason that would have prompted any skilled worker to have attempted to rearranged the LCDs in the Ohmura et al (U.S. Pub 2001/0055983), (Remarks, page 14 lines 12-16).

However, the examiner respectfully disagrees.

Both Lanier and Ohmura et al are drawn to processor-base systems for displaying image data on LCDs, graphic image system and cellular phone. For this same field of endeavor, it exists a strong motivation for combing the two references so as to eliminate usage of large display, resulting in low power consumption, as clearly shown in Ohmura et al paragraphs [0006]-[0007].

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to

support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 9 is/are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 9 defines a program embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed program can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

The examiner suggests that the applicant change the claim language of claim 9 from "image display program stored in a computer readable medium" to "a computer readable medium encoded with an mage display computer program."

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9, 12, 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 9, lines 1-2, includes "a computer readable medium" for storing display program but the "computer readable medium" is not disclosed in application specification.

Claims 12 and 15, lines 6-7, include the limitation of "placing and cancelling of display inhibition" but the "placing and cancelling of display inhibition" is not disclosed in application specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 2, 3, 5, 9, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Lanier (U.S. Pat. 6,400,374).

Regarding **claim 2**, Lanier discloses a photographed image display device (Lanier, Fig. 5) comprising:

a first LCD module (85 and 93) and a second LCD module (105 and 115) which each include a graphic memory operable to store image data and an LCD operable to display an image based on the image data stored in the graphic memory (Lanier, Fig. 5, wherein monitors 83 and 115 are connected to PCs 93 and 105; it is inherent that PCs have graphic memories used for display);

a photographing unit (video camera 86) operable to form an optical image of an object, convert the formed optical image into image data, and output the image data sequentially (Lanier, Fig. 5);

a first transfer unit (video in 91) operable to receive the image data output from the photographing unit (video camera 86) and transfer the image data to the graphic memory in the first LCD module (Lanier, Fig. 5, wherein video in 91 transfers image data from video camera 86 to video out 90 for displaying);

a storage medium (inherent part) prestoring frame image data (Avatar 81') (Lanier, Fig. 5 and column 10 lines 3-8, wherein avatar 81' is prestored);

a judging unit (PC 93 and video control 92) operable to judge whether the transfer of the image data from the first transfer unit to the graphic memory in the first LCD module has been completed (Lanier, Fig. 5, wherein it is inherent that PC 93 checks for completion of image data from video camera before display); and

a second transfer unit (PC 93, video control 107, tcp/ip 95, and 10 Base T 96) operable to, when the transfer has been completed, read the image data (user 81) from the graphic memory in the first LCD module (PC 105 and monitor 115) , combine the read image data (user 81) and the frame image data (avatar 81') so as to generate composite image data (81 and 81'), and transfer the composite image data to the graphic memory in the second LCD module (PC 105 and monitor 115), (Lanier, Fig. 5 and column 10 lines 3-9, wherein parts of composite image data are transferred).

Regarding **claim 3**, Lanier discloses the photographed image display device of claim 2. In addition, Lanier discloses

a storage instruction receiving unit (inherent part of PC 105) operable to receive a storage instruction to store the composite image data into the storage medium (Lanier, Fig. 5, wherein PC 105 has an interface for saving data); and

a storing unit (inherent part of PC 105) operable to store the composite image data into the storage medium according to the storage instruction (Lanier, Fig.5, wherein PC 105 has a storage medium for storing received composite image data).

Regarding **claim 5**, same ground of rejection as in claim 2 is applied.

Regarding **claim 9**, Lanier discloses a photographed image display program (Lanier, Fig. 5, column 9 lines 56-67 and column 10 lines 1-21, wherein PC 93 controls photographing, carries out edge contrast determination algorithm, and transfers composite image data, therefore it is inherent that program for such performance exists) used for a photographed image display device including (i) a first LCD module (85 and 93) and a second LCD module (105 and 115) which each include a graphic memory for temporarily storing image data and an LCD for displaying the image data (Lanier, Fig. 5, wherein monitors 83 and 115 are connected to PCs 93 and 105; it is inherent that PCs have graphic memories used for display), and (ii) a storage medium (inherent part) prestoring frame image data (Avatar 81') (Lanier, Fig. 5 and column 10 lines 3-8, wherein avatar 81' is prestored), the photographed image display program comprising:

a photographing step (by video camera 86) forming an optical image of an object, converting the formed optical image into image data, and outputting the image data sequentially (Lanier, Fig. 5);

a first transfer step (by video in 91) receiving the image data output in the photographing step (by video camera 86) and transferring the image data to the graphic memory in the first LCD module (Lanier, Fig. 5, wherein video in 91 transfers image data from video camera 86 to video out 90 for displaying);

a judging step (by PC 93 and video control 92) of judging whether the transfer of the image data to the graphic memory in the first LCD module has been completed

(Lanier, Fig. 5, wherein it is inherent that PC 93 checks for completion of image data from video camera before display); and

a second transfer step (by PC 93, video control 107, tcp/ip 95, and 10 Base T 96) of reading the image data (user 81) from the graphic memory in the first LCD module (PC 105 and monitor 115) , combining the read image data (user 81) and the frame image data (avatar 81') so as to generate composite image data (81 and 81'), and transferring the composite image data to the graphic memory in the second LCD module (PC 105 and monitor 115), (Lanier, Fig. 5 and column 10 lines 3-9, wherein parts of composite image data are transferred).

Regarding **claim 11**, Lanier discloses the first LCD module (PC 93 and video 83) reads, from the graphic memory thereof, the image data transferred by the first transfer unit, and displays a pre-composite image based on the image data (Lanier, Fig. 5, wherein image of subject 81 is displayed), and the second LCD module (PC 105 and video 113) reads, from the graphic memory thereof, the composite image data transferred by the second transfer unit, and displays a composite image based on the composite image data (Lanier, Fig. 5, wherein image 81' is displayed).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lanier (U.S. Pat. 6,400,374) in view of Ohmura et al (U.S. Pub. 2001/0055983).

Regarding **claim 7**, Lanier discloses a photographed image display device (Lanier, Fig. 5) comprising:

a first LCD module (85 and 93) and a second LCD module (105 and 115) which each include a graphic memory operable to store image data and an LCD operable to display an image based on the image data stored in the graphic memory (Lanier, Fig. 5, wherein monitors 83 and 115 are connected to PCs 93 and 105; it is inherent that PCs have graphic memories used for display);

a photographing unit (video camera 86) operable to form an optical image of an object, convert the formed optical image into image data, and output the image data sequentially (Lanier, Fig. 5);

a first transfer unit (video in 91) operable to receive the image data output from the photographing unit (video camera 86) and transfer the image data to the graphic memory in the first LCD module (Lanier, Fig. 5, wherein video in 91 transfers image data from video camera 86 to video out 90 for displaying);

a storage medium (inherent part) prestoring frame image data (Avatar 81') (Lanier, Fig. 5 and column 10 lines 3-8, wherein avatar 81' is prestored);

a judging unit (PC 93 and video control 92) operable to judge whether the transfer of the image data from the first transfer unit to the graphic memory in the first LCD module has been completed (Lanier, Fig. 5, wherein it is inherent that PC 93 checks for completion of image data from video camera before display); and

a second transfer unit (PC 93, video control 107, tcp/ip 95, and 10 Base T 96) operable to, when the transfer has been completed, read the image data (user 81) from the graphic memory in the first LCD module (PC 105 and monitor 115) , combine the read image data (user 81) and the frame image data (avatar 81') so as to generate composite image data (81 and 81'), and transfer the composite image data to the graphic memory in the second LCD module (PC 105 and monitor 115), (Lanier, Fig. 5 and column 10 lines 3-9, wherein parts of composite image data are transferred).

However, Lanier does not disclose a mobile telephone including the photographed image display device.

On the other hand, Ohmura et al discloses a cellular phone with two separate LCDs (Ohmura et al, Abstract and Figs. 8-9, wherein first LCD 331 and second LCD 332 are disclosed).

Therefore, it would have been obvious to an artisan to combine the photographed image display device as described by Lanier with the cellular phone as described by Ohmura et al in order to display data on two LCD modules because such combination eliminates usage of large display, resulting in power saving (Ohmura et al, paragraphs [0006] and [0007]).

Regarding **claim 14**, Lanier discloses the first LCD module (PC 93 and video 83) reads, from the graphic memory thereof, the image data transferred by the first transfer unit, and displays a pre-composite image based on the image data (Lanier, Fig. 5, wherein image of subject 81 is displayed), and the second LCD module (PC 105 and video 113) reads, from the graphic memory thereof, the composite image data transferred by the second transfer unit, and displays a composite image based on the composite image data (Lanier, Fig. 5, wherein image 81' is displayed).

Allowable Subject Matter

Claims 13 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record neither anticipates nor renders obvious placing and cancelling the display of pre-composite image on a LCD.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gowda et al (U.S. Pat. 6,628,333).

Shiki et al (U.S. Pub. 2002/0149678).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUAN H. LE whose telephone number is (571)270-1130. The examiner can normally be reached on M-Th 7:30-5:00 F 7:30-4:00.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan H Le/
Examiner, Art Unit 2622

/Tuan V Ho/
Primary Examiner, Art Unit 2622